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| Understanding by Design Template | | | | | | | |
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|  |  |  | with questions | |  |  |  |
| **Stage 1 - Desired Outcome** | | | | | | | |
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| **Established Goals:** | |  |  |  |  |  | **G** |
| \* What relevant goals (e.g. content standards, course or program objective, learning outcomes) will this design address?  A.12.4 Analyze the short-term and long-term effects that major changes in population in various parts of the world have had or might have on the environment  A.12.6 Collect and analyze geographic information to examine the effects that a geographic or environmental change in one part of the world, such as volcanic activity, river diversion, ozone depletion, air pollution, deforestation, or desertification, may have on other parts of the worldt  [Climate change is a natural process that is influenced by human actions.](javascript:openeditwin('selectnode.php?menu=&ml=1_1_1_8&p=1&n=1&uid=9045&SelectedCourseID=179&SelectedCourseType=teacher')) | | | | | | | |
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| **Understandings:** | |  | **U** | **Essential Questions:** | | | **Q** |
| *Students will understand that…* | | |  | \* What provocative questions will foster inquiry, understanding, and transfer of learning?  EQ 1.2. How are human actions and choices contributing to climate change? | | | |
| Historically, people have always had a “carbon footprint” since the age of the discovery of fire.  Historically, the human impact on climate change was negligible until the industrial era.  In the modern era, we cannot reasonably avoid having a carbon footprint.  Changing human behaviors now will not effect immediate change in the climate. | | |  |
| \* What specific understandings about them are desired? | | | |
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| \* What misunderstandings are predictable? | | | |
|  |  |  |  |
| *Students will know . . .* | | | **K** | *Students will be able to* | | | **S** |
| Students will know that amount of man-made carbon emissions has grown “exponentially” since the dawn of the Industrial Revolution and esp. since the late 19th century.  Students will know that all man-made materials/objects contribute to their “carbon footprint” in whatever they do. | | | | | | |  |
| Students will know the “carbon footprint” of their favorite activities.  -Students will be able to explain, orally, in 1-2 minutes, how a randomly chosen activity has a carbon footprint.  -Students will be able to use online resource to calculate the carbon footprint of an assigned activity. | | | | | | | |
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| **Stage 2 - Assessment Evidence** | | | | | | | |
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| **Performance Tasks:** | |  | **T** | **Other Evidence:** | | | **OE** |
| \* Through what authentic performance tasks will students demonstrate the desired understandings? | | | | \* Through what other evidence (e.g. quizzes, tests, academic prompts, observations, homework, journals) will students demonstrate achievement of the desired results? | | | |
| \* By what criteria will performances of understanding be judged? | | | | \* How will students reflect upon on self-assess their learning? | | | |
| **Stage 3 - Learning Plan** | | | | | | | |
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| **Learning Activities:** | |  |  |  |  |  | **L** |
| What learning experiences and instruction will enable students to achieve the desired results? | | | | | | | |
|  | How will the design | |  |  |  |  |  |
| W = Help the students know Where the unit is going and What is expected? Help the teacher know Where the students are coming from (prior knowledge, interests)? | | | | | | | |
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| H = Hook all students, and Hold their interest? | | | | |  |  |  |
| E = Equip students, help them Experience the key ideas and Explore the issue? | | | | | | | |
| R = Provide opportunities to Rethink and Revise their understandings and work? | | | | | | | |
| E = Allow students to Evaluate their work and its implications? | | | | | |  |  |
| T = be Tailored (personalized) to the different needs, interests, and abilities of learners? | | | | | | | |
| O = Be Organized to maximize initial and sustained engagement as well as effective learning? | | | | | | | |
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